

MXT™-Union Connector Kits for Fused Silica Columns

- Low-dead-volume, leak-tight connection.
- Reusable.
- Siltek® treatment ensures maximum inertness.
- Ideal for connecting a guard column or transfer line to an analytical column.
- Use to oven temperatures of 350°C.
- Available in union and “Y” configurations.

These MXT™ connectors can be used with fused silica tubing, because of a Valcon polyimide 1/32-inch one-piece fused silica adaptor. This unique graphite-reinforced composite allows a capillary column to slide into the adaptor and be locked in place simply by loosening and tightening the fitting.

MXT™-Union Connector Kits for Fused Silica Columns

Each kit contains the MXT™ union, two 1/32-inch nuts and two one-piece fused silica adaptors.

Description	qty.	cat.#
For 0.25mm ID Fused Silica Columns	kit	21386
For 0.32mm ID Fused Silica Columns	kit	21385
For 0.53mm ID Fused Silica Columns	kit	21384

MXT™ “Y”-Union Connector Kits for Fused Silica Columns

Each kit contains the MXT™ union, three 1/32-inch nuts and three one-piece fused silica adaptors.

Description	qty.	cat.#
For 0.25mm ID Fused Silica Columns	kit	21389
For 0.32mm ID Fused Silica Columns	kit	21388
For 0.53mm ID Fused Silica Columns	kit	21387

1/32-Inch Replacement Nut

Description	qty.	cat.#
1/32" Replacement Nut	5-pk.	20389

Valco® Connectors—One-Piece Valcon Polyimide Adaptor Ferrule for Fused Silica

We recommend a one-piece adaptor ferrule for use in fittings in which the ferrule will not be removed. Connections are made or broken by tightening or loosening the fitting nut and sliding the tubing in or out. Fused silica adaptor ferrules are Valcon polyimide, a unique graphite-reinforced composite, specially prepared to maximize mechanical stability at temperatures to 350°C. The determining factor for selecting adaptor ferrule size is the fused silica tubing OD.

1/32-Inch Adaptor Ferrule (Valcon Polyimide)

Tubing OD	Tubing ID	Valco® #	qty.	cat.#
0.25 ≤ 0.40mm	0.25mm	FS.4-5	5-pk.	20137
0.40 ≤ 0.50mm	0.32mm	FS.5-5	5-pk.	20140
0.50 ≤ 0.80mm	0.53mm	ZF.5V-5	5-pk.	20141
		1/32" Replacement Nut	5-pk.	20389

Ferrule Removal Kit

The tapered tools in this kit have teeth designed to grip and remove fused silica adaptor ferrules that have become stuck in the fitting detail. Each kit has two tools: one for removing 1/32-inch adaptor ferrules and one for removing 1/16-inch adaptor ferrules.

Description	Valco® #	qty.	cat.#
Ferrule Removal Kit	FRK1	kit	20146





Super-Clean™ Gas Filters

- High-purity output ensures 99.9999% pure gas.
- “Quick connect” fittings for easy, leak-tight cartridge changes.
- Glass inside to prevent diffusion; plastic outside for safety.

Designed for fast, simple cartridge changing

Cartridge systems make changing gas filters quick and easy, and Super-Clean™ gas filters are the latest in cartridge-style gas filtration. A baseplate allows cartridges to be exchanged without introducing oxygen. Spring-loaded check valves seal when a filter is removed and open only when a new filter has been locked in place. There is no longer a need for loosening and tightening fittings every time a trap is changed, and your system will not become contaminated during the process.

With available 2- or 3-position baseplates, you can purify all GC gas streams at one location. Figure 1 shows some possible filter cartridge combinations using these baseplates. Any combination is possible because any Restek Super-Clean™ filter cartridge can be used with any Restek baseplate.

High-purity output for improved sensitivity (Table I)

The Triple Filter cartridge (cat.# 22020) is ideal for purifying carrier gas. This trap contains oxygen, moisture, and hydrocarbon scrubbers in one cartridge. The purity of your carrier gas after flowing through the Triple Filter is better than six-9s (99.9999% pure), which is ideal for sensitive mass spectrometry (MS) or ECD analyses, and for protecting your analytical columns against damage from contaminated carrier gas.

The Fuel Gas Filter cartridge (cat.# 22022) is perfect for purifying flame ionization detector (FID) fuel gases, removing both moisture and hydrocarbons. Using the Fuel Gas Filter for FID hydrogen and air will produce a stable baseline, improving overall reproducibility and sensitivity.

did you know?

All Super-Clean™ filter cartridges (except hydrocarbon filter cat.# 22030) feature easy-to-read indicators. The indicator code is shown on every trap so there is no confusion about when to replace it.

tech tip

Oxygen and Moisture Traps

We highly recommend oxygen and moisture traps for make-up gas when operating sensitive detectors such as electron capture detectors (ECD). The hydrogen reaction gas for sensitive electrolytic conductivity detectors (ELCD) also requires a hydrocarbon trap, to remove trace impurities.

Figure 1 Filter cartridges can be configured for different applications.

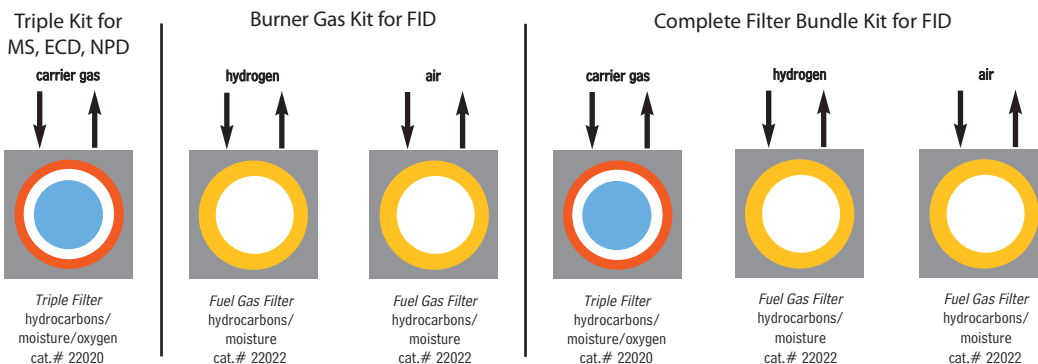


Table I Each Super-Clean™ filter provides high-purity outlet gas.

Type of Filter	Outlet Gas Quality (%)	Maximum Pressure/ Maximum Flow Rates	Use for:	Indicator Color Change	Capacity			Estimated Lifetime (years)
					H ₂ O (g)	O ₂ (mL)	Hydrocarbons (g)	
Moisture cat.# 22028	>99.9999	11 bar 159psi/ 7 L/min.	Inert carrier gas Air Hydrogen	Yellow to clear	7.2	—	—	>2
Oxygen cat.# 22029	>99.9999	11 bar 159psi/ 7 L/min.	Inert carrier gas	Green to grey	NA	1000	—	>2
Hydrocarbons cat.# 22030	>99.9999	11 bar 159psi/ 7L/min.	Inert carrier gas Air Hydrogen	No indicator	NA	—	12 ³	>2
Fuel Gas ¹ cat.# 22022	>99.9999	11 bar 159psi/ 7L/min.	Inert carrier gas Air Hydrogen	Yellow to clear	3.5	—	24 ³	>1.5
Triple ² cat.# 22020	>99.9999	11 bar 159psi/ 7L/min.	Inert carrier gas	Yellow to clear Green to grey	1.8	500	4 ³	>1
Helium Specific ² cat.# 21982	>99.9999	11 bar 159psi/ 7L/min.	Helium	Yellow to clear Green to grey	1.8	500	—	>1

¹Removes hydrocarbons, moisture.

²Removes hydrocarbons, moisture, oxygen.

³As *n*-butane.

Super-Clean™ Filter and Baseplate Kits

Description	qty.	cat.#
Carrier Gas Cleaning Kit (includes mounting baseplate, 1/8" inlet/outlet fittings, and oxygen/moisture/hydrocarbon Triple Filter)	kit	22019
Fuel Gas Purification Kit (includes mounting baseplate, 1/8" inlet/outlet fittings, and hydrocarbon/moisture Fuel Gas Filter)	kit	22021



All traps measure:
10 5/8" x 1 3/4" (27 x 4.4 cm)
Each baseplate unit
measures: 4" x 4" x 1 7/8"
(10.2 x 10.2 x 4.8 cm)

Replacement Filters

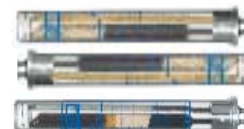
Description	qty.	cat.#
Replacement Triple Filter (removes oxygen, moisture and hydrocarbons)	ea.	22020
Replacement Fuel Gas Filter (removes moisture and hydrocarbons)	ea.	22022



Filter Bundle Kit

Kit includes two Fuel Gas Filters for FID fuel gases and one Triple Filter for carrier gas.

Description	qty.	cat.#
Filter Bundle Kit	kit	22031



Super-Clean™ Ultra-High Capacity Filters

Description	qty.	cat.#
Ultra-High Capacity Hydrocarbon Filter	ea.	22030
Ultra-High Capacity Moisture Filter	ea.	22028
Ultra-High Capacity Oxygen Filter	ea.	22029



Helium-Specific Super-Clean™ Filter and Kit

- Specifically designed for purification of helium in GC/MS systems.
- Traps are packed and conditioned using helium.
- Uses standard single-position baseplate.

Description	qty.	cat.#
Helium-Specific Carrier Gas Cleaning Kit (includes mounting baseplate, 1/8" inlet/outlet fittings, and oxygen/moisture/hydrocarbon Helium-Specific Filter)	kit	21983
Replacement Helium-Specific Filter (removes oxygen, moisture and hydrocarbons)	ea.	21982



Baseplates

Standard baseplate fittings are 1/8". To adapt to 1/4", order 1/8" to 1/4" tube-end unions (cat. # 21833, below).

Description	qty.	cat.#
Single-Position Baseplate	ea.	22025
2-Position Baseplate	ea.	22026
3-Position Baseplate	ea.	22027



Wall Mounting Bracket

Baseplates can be mounted by using screws and the mounting holes on the baseplate, or by using this optional wall mounting bracket.

Description	qty.	cat.#
Wall Mounting Bracket for Super-Clean™ Baseplates	ea.	21984



Replacement O-Rings for Cartridge Baseplates

Pack includes 10 large O-rings and 10 small O-rings.

Description	qty.	cat.#
Replacement O-Rings for Cartridge Baseplates	20-pk.	22023



1/8-Inch to 1/4-Inch Tube-End Unions

To adapt 1/8" Super-Clean™ baseplate fittings to 1/4", use 1/8" to 1/4" tube-end unions.

Description	qty.	cat.#
1/8" to 1/4" Tube-End Unions	5-pk.	21833



Click-On Inline Super-Clean™ Traps

- High-purity output ensures 99.9999% pure gas.
- Click-On fittings for easy, leak-tight cartridge changes; brass or stainless steel, 1/4" or 1/8".
- Helium-Specific Triple Trap is ideal for GC/MS.

Using the same features and benefits as the Super-Clean™ base-plates and filters, SGT designed an inline trap. Click-On adaptor connectors allow cartridges to be exchanged without introducing oxygen. Spring-loaded check valves seal when a filter is removed and open only when a new filter has been locked in place. There is no need for loosening and tightening fittings every time a trap is changed, and your system will not become contaminated during the process.

The Triple Trap is ideal for purifying carrier gas—it contains oxygen, moisture, and hydrocarbon scrubbers in one cartridge.

The Fuel Gas Trap is ideal for purifying flame ionization detector (FID) fuel gases, removing both moisture and hydrocarbons.

The Helium-Specific Triple Trap is ideal for purifying helium in GC/MS systems. This trap is packed and purged under helium and contains oxygen, moisture, and hydrocarbon scrubbers in one cartridge.

Trap replacement depends on the quality of the incoming gas. Use the double connector and install an indicating cartridge after a trap to indicate when the trap should be replaced.

please note

Super-Clean™ Gas Filters are recommended for purifying noncorrosive gases with low concentrations of contaminants. The maximum concentration of oxygen in the incoming gas stream for oxygen purifiers is 0.5%.

Filter Type	Gas Quality at Outlet	Maximum Pressure	Maximum Flow (L/min.)	Use For	H ₂ O (g)	Capacity O ₂ (mL)	Hydrocarbons (g)	Estimated Lifetime (years)
Moisture cat.#22467	>99.9999	11 bar 160psi	25	Inert carrier gas, helium, air, H ₂	21	NA	NA	>3
Oxygen cat.#22468	>99.9999	11 bar 160psi	25	Inert carrier gas	NA	3000	NA	>3
Hydrocarbon cat.#22466	>99.9999	11 bar 160psi	25	Inert carrier gas, helium, air, H ₂	NA	NA	36 ³	>3
Fuel Gas ¹ cat.#22465	>99.9999	11 bar 160psi	25	Inert carrier gas, helium, air, H ₂	10	NA	18 ³	>2
Triple ² cat.#22464	>99.9999	11 bar 160psi	25	Inert carrier gas	6	1000	12 ³	>2

¹Removes hydrocarbons, moisture.

²Removes hydrocarbons, moisture, oxygen.

³As *n*-butane.

Click-On Inline Super-Clean™ Traps and Connector Kits

Description	qty.	cat.#
Carrier Gas Purification Kit, 1/8" Stainless Steel Includes (2) 1/8" SS connectors and (1) oxygen/moisture/hydrocarbon triple trap	kit	22456
Carrier Gas Purification Kit, 1/8" Brass Includes (2) 1/8" brass connectors and (1) oxygen/moisture/hydrocarbon triple trap	kit	22457
Carrier Gas Purification Kit, 1/4" Stainless Steel Includes (2) 1/4" SS connectors and (1) oxygen/moisture/hydrocarbon triple trap	kit	22458
Carrier Gas Purification Kit, 1/4" Brass Includes (2) 1/4" brass connectors and (1) oxygen/moisture/hydrocarbon triple trap	kit	22459
Fuel Gas Purification Kit, 1/8" Stainless Steel Includes (4) 1/8" SS connectors and (2) hydrocarbon/moisture traps	kit	22460
Fuel Gas Purification Kit, 1/8" Brass Includes (4) 1/8" brass connectors and (2) hydrocarbon/moisture traps	kit	22461
Fuel Gas Purification Kit, 1/4" Stainless Steel Includes (4) 1/4" SS connectors and (2) hydrocarbon/moisture traps	kit	22462
Fuel Gas Purification Kit, 1/4" Brass Includes (4) 1/4" brass connectors and (2) hydrocarbon/moisture traps	kit	22463



Click-On Inline Super-Clean™ Replacement Traps

Description	qty.	cat.#
Click-On Super-Clean™ Replacement Triple Trap (removes oxygen, moisture and hydrocarbons)	ea.	22464
Click-On Super-Clean™ Replacement Fuel Gas Trap (removes moisture and hydrocarbons)	ea.	22465



Click-On Inline Super-Clean™ Ultra-High Capacity Traps

Description	qty.	cat.#
Ultra-High Capacity Hydrocarbon Trap	ea.	22466
Ultra-High Capacity Moisture Trap	ea.	22467
Ultra-High Capacity Oxygen Trap	ea.	22468



Helium-Specific Click-On Inline Super-Clean™ Trap and Connector Kits

Description	qty.	cat.#
Kits		
Helium-Specific Carrier Gas Cleaning Kit, 1/8" Stainless Steel Includes (2) 1/8" SS connectors and (1) oxygen/moisture/hydrocarbon helium-specific triple trap	kit	22469
Helium-Specific Carrier Gas Cleaning Kit, 1/8" Brass Includes (2) 1/8" brass connectors and (1) oxygen/moisture/hydrocarbon helium-specific triple trap	kit	22470
Helium-Specific Carrier Gas Cleaning Kit, 1/4" Stainless Steel Includes (2) 1/4" SS connectors and (1) oxygen/moisture/hydrocarbon helium-specific triple trap	kit	22471
Helium-Specific Carrier Gas Cleaning Kit, 1/4" Brass Includes (2) 1/4" brass connectors and (1) oxygen/moisture/hydrocarbon helium-specific triple trap	kit	22472
Replacement Trap		
Helium-Specific Replacement Triple Trap (removes oxygen, moisture and hydrocarbons)	ea.	22473

did you know?

Helium-Specific Click-On Inline Super-Clean™ Trap and Kits are designed specifically for purification of helium in GC/MS systems!



tech tip

Install an indicator after the Click-On inline filter so there is no confusion about when to replace the traps.

Click-On Inline Super-Clean™ Indicator

- Oxygen: Green to Grey
- Moisture: Beige to Clear

Description	qty.	cat.#
Click-On Inline Super-Clean™ Indicator (oxygen, moisture)	ea.	22474



Click-On Inline Super-Clean™ Connectors

- Click-On connectors allow you to change traps quickly, without introducing oxygen into your system.

Description	qty.	cat.#
1/8" Brass Click-On Inline Super-Clean™ Connectors	2-pk.	22475
1/8" Stainless Steel Click-On Inline Super-Clean™ Connectors	2-pk.	22476
1/4" Brass Click-On Inline Super-Clean™ Connectors	2-pk.	22477
1/4" Stainless Steel Click-On Inline Super-Clean™ Connectors	2-pk.	22478



Click-On Inline Super-Clean™ Double Connector

- Connects any Click-On trap to a Click-On indicator.

Description	qty.	cat.#
Click-On Inline Super-Clean™ Double Connector, stainless steel	ea.	22479



Wall-Mounting Clamps for Click-On Inline Super-Clean™ Traps

Description	qty.	cat.#
Wall-Mounting Clamps for Click-On Inline Super-Clean™ Traps	4-pk.	22480



Replacement O-Rings for Click-On Inline Super-Clean™ Connectors

- Pack includes 10 large O-rings and 10 Small O-rings.

Description	qty.	cat.#
Replacement O-Rings for Click-On Inline Super-Clean™ Connectors	20-pk.	22481

Gas Purifiers / Traps



Dimensions: 21" x 1 1/2"
(53.3 x 3.8 cm)

Please Note: We recommend using an indicating oxygen trap (e.g., cat.# 22029, pg. 21) downstream from a VICI® Mat/Sen® purifier to continually ensure gas purity and indicate absolute change-out time.

VICI® Mat/Sen® Gas-Specific Purifier Modules

- Replace separate oxygen, moisture, and hydrocarbon traps with one multiple-bed purifier, specific for purifying helium, hydrogen, nitrogen, or air.
- Reduce gas impurities from ppm to low ppb levels.
- Decrease baseline noise and increase GC/MS sensitivity.
- Pre-purged with the specified gas, to shorten downtime.

These gas-specific purifier modules offer dramatic reductions in contaminant levels—from ppm to levels that are below the limit of standard analytical detection. Performance is optimized by incorporating a multiple-bed format that progressively lowers concentrations of contaminants at each successive bed. VICI® Mat/Sen® purifiers are guaranteed to produce gases that are purer than 99.9999%, when supplied with gas of 99.995% purity, and are pre-purged with the specified gas to speed conditioning. Purifier capacity is approximately four tanks of gas at 99.995% (50ppm) purity, and correspondingly longer for purer gases.

Specifications:

Length:	21" (52.3cm)	Pressure Drop from 120psi (827 kPa)	
Diameter:	1.5" (3.8cm)	inlet at a flow of 0-500mL/min.:	<0.20psi (2.1kPa)
Maximum Inlet Pressure:	1000psi (6895 kPa)	Compression End Fittings:	1/8" or 1/4", stainless steel
Maximum Recommended Flow:	500mL/min.	Shipping Weight:	3.04 lb. (1300 g)

it's a fact

The nitrogen module is excellent for LC/MS systems.

Gas-Specific Purifier Module	Compression Tube Fittings			
	1/4-inch		1/8-inch	
	qty.	cat.#	qty.	cat.#
Helium Purifier Module	ea.	22600	ea.	22601
Hydrogen Purifier Module	ea.	22602	ea.	22603
Nitrogen Purifier Module*	ea.	22604	ea.	22605
Air Purifier Module	ea.	22606	ea.	22607

*Warning: Do not use with nitrogen containing more than 500ppm of oxygen. If the oxygen level in the stream exceeds 500ppm, use an air purifier.

Indicating Oxygen Trap

- Indicator changes color from light green to grey as oxygen is trapped.
- Heavy-walled glass body prevents oxygen & water infusion.
- Pre-purged for fast stabilization.
- 100psig maximum operating pressure.
- Reduces oxygen to 0.1ppm.

Description	qty.	cat.#
Indicating Oxygen Trap, 1/8" Fittings	ea.	22010
Indicating Oxygen Trap, 1/4" Fittings	ea.	22011

High-Capacity Oxygen Trap

- Removes up to 600mg of oxygen or 2g of water.
- Long life—typically purifies more than five 200ft³ cylinders.
- Reduces oxygen to 15ppb.
- Maximum operating pressure: 250psi.
- Flow: 3L/min. @ 32psi.

Description	qty.	cat.#
High-Capacity Oxygen Trap, 1/8" Fittings	ea.	20601
High-Capacity Oxygen Trap, 1/4" Fittings	ea.	20600

High-Capacity Moisture Trap

- Purged with ultra-high-purity helium; ready to use.
- Reduces water to less than 15ppb.
- Maximum operating pressure: 250psi.
- Maximum flow: 1.25L/min.

Description	qty.	cat.#
High-Capacity Moisture Trap, 1/8" Fittings	ea.	21997
High-Capacity Moisture Trap, 1/4" Fittings	ea.	20638



Dimensions: 10" x 1 1/4"
(25.4 x 3.2 cm)



Dimensions: 11" x 1 1/2"
(27.9 x 3.8 cm)

GC/MS Compatible



Dimensions: 11" x 1 1/2"
(27.9 x 3.8 cm)

Indicating Moisture Trap

- Reduces water to less than 10ppb; indicator changes color from blue to pink at 5% relative humidity.
- Pre-purged for fast stabilization.
- Reduces noise from high-sensitivity detectors.
- Heavy-walled glass body prevents oxygen & water infusion.
- 40µm frit prevents microparticulate damage to needle valves and flow controllers.
- Maximum operating pressure: 100psig.



Dimensions: 13" x 2"
(33 x 5.1 cm)

Description	qty.	cat. #
Indicating Moisture Trap, 1/8" Fittings	ea.	22014
Indicating Moisture Trap, 1/4" Fittings	ea.	22015

Capillary-Grade Hydrocarbon Trap

- Packed with an extremely high surface area, baked coconut shell-based activated carbon.
- Purged with ultra-high-purity helium.
- Reduces organics to 0.1ppm (assuming 100ppm input).
- Maximum operating pressure: 250psi.



Dimensions: 11" x 1 1/2"
(27.9 x 3.8 cm)

Description	qty.	cat. #
Capillary-Grade Hydrocarbon Trap, 1/8" Fittings	ea.	21991
Capillary-Grade Hydrocarbon Trap, 1/4" Fittings	ea.	21992

Model FID-1000 and FID-2500 Gas Stations

- Single unit produces UHP zero air from house compressed air and 99.9995% pure hydrogen from deionized water.
- Ideal for supplying up to 5 - 6 FIDs.
- Eliminates inconvenient and dangerous cylinders.
- Silent operation, minimal operator attention required.



Parker Balston's Gas Stations provide both UHP grade hydrogen fuel gas and zero grade air for flame ionization detectors on gas chromatographs. The system is specifically designed to supply fuel gas to FIDs and to support flame thermionic and flame photometric detectors. The units produce zero air by purifying compressed air to a total hydrocarbon concentration of 0.1ppm or less (measured as methane).

Specifications	
Hydrogen Purity:	99.9995%
Zero Air Purity:	FID-1000: < 0.1ppm total hydrocarbons as methane FID-2500: < 0.05ppm total hydrocarbons as methane
Max. Hydrogen Flow Rate:	FID-1000: 90cc/min. FID-2500: 250cc/min.
Max. Zero Air Flow Rate:	FID-1000: 1000cc/min. FID-2500: 2500cc/min.
Power:	120VAC/amp, 60Hz, 400 watts
Hydrogen Outlet Pressure:	60 psig
Zero Air Outlet Pressure:	40-125 psig*
Inlet Connection:	1/2" NPT (female)
Outlet:	1/8" compression
Dimensions:	16.5"h x 10.5"w x 17"d (42cm x 27cm x 43cm)
Weight:	53 lbs. (24kg)



Produce zero air and pure hydrogen from one unit!

The hydrogen generators produce hydrogen gas from deionized water, using the principle of electrolytic dissociation of water and hydrogen proton conduction through a proton exchange membrane cell.

Description	qty.	cat. #
Model FID-1000 Gas Station (ideal for 1 - 2 FIDs)	ea.	20177
Model FID-2500 Gas Station (ideal for 5 - 6 FIDs)	ea.	24913

Replacement Components for FID Gas Stations

Resin Bed Cartridge for Hydrogen Generators in FID-1000 and FID-2500 Gas Stations	ea.	24914
Replacement Desiccant Cartridge	ea.	21671
FID Gas Station Maintenance Kit (Includes 1 desiccant cartridge, 1 resin bed cartridge, 1 filter cartridge)	ea.	24915

*Zero air inlet requires minimum of 40psig compressed air pressure.

International Power Cord Sets

Just add the proper suffix to the catalog number for the gas generator you are ordering.

Location	qty.	cat. # suffix
United Kingdom (230VAC, 50/50Hz)	ea.	-550
European (230VAC, 50/60Hz)	ea.	-551
IEC Connector Only (230VAC, 50/60Hz)	ea.	-552
Japanese (200VAC, 50/60Hz)	ea.	-556
Japanese for Zero Air (100VAC, 50/60Hz)	ea.	-553
Japanese for Hydrogen (100VAC, 50/60Hz)	ea.	-554
Japanese for Nitrogen (100VAC, 50/60Hz)	ea.	-555

free literature

For more information, download a free copy of our *FID Gas Stations Fast Facts* from www.restek.com

lit. cat.# 580051

Dual-Stage Ultra-High-Purity Chrome-Plated Brass Regulators

- Oxidation-resistant, chrome-plated.
- Most stable outlet pressure control throughout the life of a high-pressure gas cylinder.
- Secondary pressure regulation not needed.
- Most widely used regulator.
- Less internal volume than stainless steel regulators.



Outlet pressure: 0 to 100psig
 Outlet gauge: 30" – 0 to 200psig
 Inlet gauge: 0 to 4000psig
 Outlet assembly: diaphragm valve, 1/4" tube fitting

Fitting	qty.	cat.#
CGA 580 (N ₂ , He, Ar)	ea.	21667
CGA 350 (H ₂ , P ₂)	ea.	21668
CGA 590 (Air)	ea.	21669

Single-Stage Ultra-High-Purity Chrome-Plated Brass Regulators

- Oxidation-resistant, chrome-plated.
- Use when there is secondary pressure regulation downstream.
- Identical gas purity protection as with our dual-stage regulators.

Outlet pressure: 0 to 100psig
 Outlet gauge: 30" – 0 to 200psig
 Inlet gauge: 0 to 4000psig
 Outlet assembly: diaphragm valve, 1/4" tube fitting

Fitting	qty.	cat.#
CGA 580 (N ₂ , He, Ar)	ea.	20646
CGA 350 (H ₂ , P ₂)	ea.	20647
CGA 590 (Air)	ea.	20648



Instrument-Grade Welded and Drawn 304 Grade Stainless Steel Tubing

Clean tubing is critical to the delivery of pure gas to your instrument. Restek's Stainless Steel Tubing is specially cleaned for inertness by using the procedure for processing our Silcoteel® and Siltek®-treated products, because scrupulously clean parts are a prerequisite for a quality coating.

cleaned

All tubing is cleaned and ready to use.

ordering note

Required length in meters
 x 3.2808 = length in feet.

An extra charge is applied for cutting and/or straightening stainless steel and/or copper tubing, calculated from the total number of pieces produced for each line item:

# of Pieces	Added Charge
5 to 15	
16 to 30	
31 to 75	
76 to 99	
100 to 200	

Tubing Dimensions		Length (per-foot pricing on 26 feet or more)		
ID (in.)	OD (in.)	25 Feet	26–100 Feet	>100 Feet*
0.01" ID	1/16" OD	cat.# 21500	cat.# 21501	cat.# 21502
0.02" ID	1/16" OD	21503	21504	21505
0.03" ID	1/16" OD	21506	21507	21508
0.04" ID	1/16" OD	21509	21510	21511
0.085" ID	1/8" OD	21512	21513	21514
0.21" ID	1/4" OD	21515	21516	21517

*The availability of long lengths (continuous lengths up to 500 feet) is subject to inventory constraints. Please inquire before ordering.

Cleaned Copper Tubing

- Adheres to ASTM B-280.
- Pre-cleaned and ready to use.
- Use for plumbing GC systems.

ID	OD	Wall	qty.	cat.#
0.065"	1/8"	0.030"	50 ft.	21590
0.190"	1/4"	0.030"	50 ft.	21592

GC Installation Kit

This kit contains the tubing and fittings needed to add an additional GC to your lab bench. Also included are four 1/8-inch tees, so carrier, fuel, and other GC gases can be routed to the new inlet or detector from existing gas lines. Order additional parts, such as purifiers or regulators, separately to customize the GC installation to your specifications. Kit includes: one tubing cutter, one 1/8-inch x 1/4-inch reamer, one 7/16-inch wrench, one 1/2-inch wrench, four 1/8-inch brass tees, ten 1/8-inch brass nuts, ten brass front and back ferrules, and 50 feet (15.2 meters) of our instrument-grade cleaned 1/8-inch copper tubing.



Description	qty.	cat.#
GC Installation Kit	kit	21325

1/16-Inch Tubing Cutter

- Produces square, smooth cuts in 1/16-inch tubing.
- Eliminates tubing distortion.
- Replaceable cutting wheel.



Description	qty.	cat.#
1/16" Tubing Cutter	ea.	20192
Replacement Cutting Wheels	3-pk.	20185

Ridgid® Tubing Cutter

- Excellent for cutting 1/8- or 1/4-inch metal tubing.
- Compact size is ideal for tight spaces.
- Replaceable cutting wheel.



Description	qty.	cat.#
Ridgid® Tubing Cutter for 1/8" or 1/4" metal tubing	ea.	23011
Replacement Cutting Wheels	2-pk.	23012

Tubing Reamer

- Removes burrs from stainless steel tubing.
- For 1/4- or 1/8-inch tubing.
- Non-slip safety design.



Description	qty.	cat.#
Tubing Reamer	ea.	20134

Tubing Dressing Tool

Same tool as included with the SSI tube cutting machine.

Description	qty.	cat.#
1/16" Tubing Dressing Tool	ea.	20188
Replacement Insert for 1/16" Tubing Dressing Tool	ea.	20189
1/8" Tubing Dressing Tool	ea.	20190
Replacement Insert for 1/8" Tubing Dressing Tool	ea.	20191

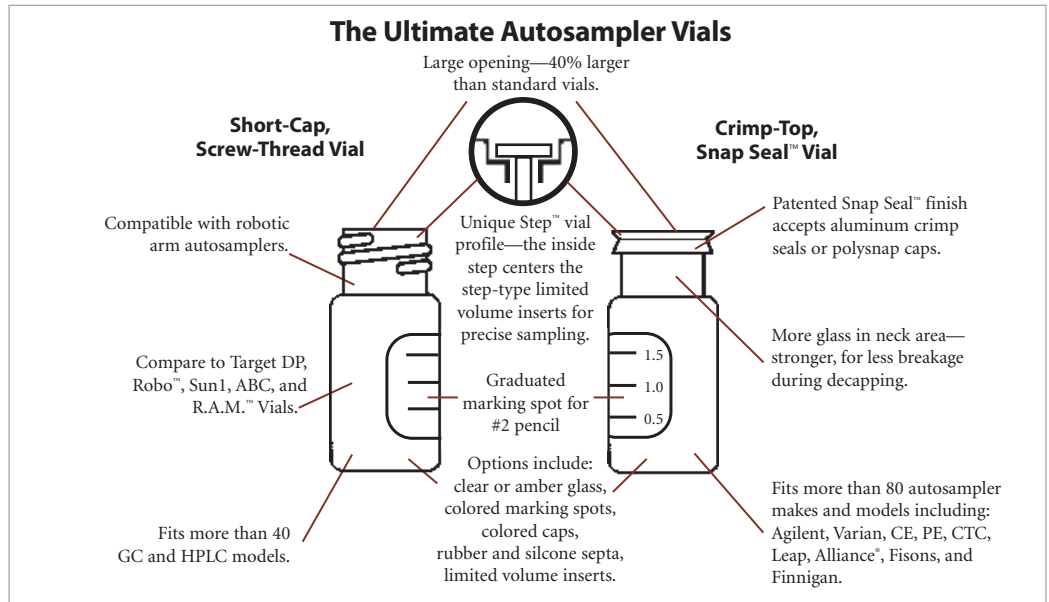


1/16-Inch Tubing Cutting Pliers

- Ideal for cutting 1/16-inch tubing.
- Cuts quickly, reducing distortion.
- Cuts clean, eliminating need for deburring.



Description	qty.	cat.#
1/16" Tubing Cutting Pliers	ea.	20193



For a highly inert surface, we recommend Siltek® deactivation for your vials:

- Maximizes inertness, minimizes sample breakdown—ideal for difficult matrices and reactive compounds.
- Inert over a wide sample pH range.
- Low bleed.
- Thermally stable.

Our proprietary Siltek® deactivation process (US patent # 6,444,326) produces a highly inert glass surface that features high temperature stability, extreme durability, and low bleed. Try Siltek® deactivated vials for better recovery of sample analytes.

For Siltek® vials, add the corresponding suffix number to the vial catalog number.

Qty.	Siltek® Deactivation	
100-pk.	-222	addl. cost
1000-pk.	-223	addl. cost

instrument **reference**

Thermo Scientific Instrument Model #	11mm Crimp-Top	9mm Short-Cap, Screw-Thread	8mm Crimp-Top
TRACE™ GC 2000, AS2000	X	X	X